

## **The spider (Araneae) fauna of the shore of Lake Balaton, Hungary**

By

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**Abstract.** A total of 171 species of spiders have been found on the shore of Lake Balaton (Hungary). Some of them are considered to be rare and four are new species to the fauna of Hungary.

Balaton is the largest and the most well-known lake of Hungary. In spite of this, faunistical data concerning the spider fauna near Lake Balaton are rather poor. To improve the situation, the Limnological Research Institute, Tihany (Hungary) organised research and extensive collecting works in this area in 1990—1994. Before this study, only few references to this area can be found (KOLOSVÁRY, 1928, 1931, 1933; BALOGH 1933). This study summarises the result of the investigations of five years (1990—1994). The surveys were done by IMRE LOKSA (1990—91), ISTVÁN LOKSA (1992) and KINGA SZATHMÁRY (1993—94).

### **Material and methods**

Sampling was carried out at 15 sampling sites (Figure 1). Only four of them were along the southern shoreline because it is mostly covered with concrete. In most cases active collecting methods were used: singling, sweeping, the peeling off the barks, at some localities pitfall traps also set up. We have at least one data set per each season from all research sites.

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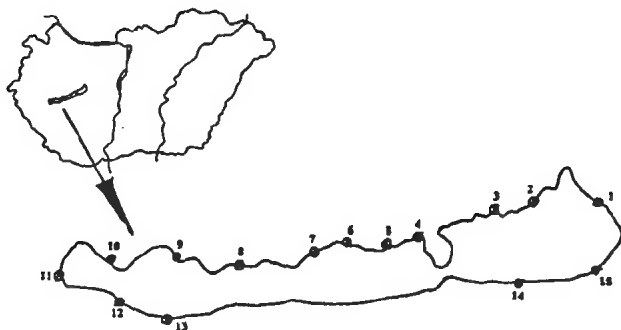


Fig. 1. Location of the sampling sites. 1: Balatonkenese, 2: Káptalanfűred - Alsóörs, 3: Paloznaki-bay, 4: Bozsai-bay, 5: Balatonudvari, 6: Balatonakali, 7: Balatonszepezd, 8: Ábrahámhegy, 9: Szigliget, 10: Balatongyörök, 11: Fenékpusztá, 12: Balatonberény, 13: Balatonfenyves, 14: Balatonszéplak-felső, 15: Balatonvilágos

## Results

Altogether 171 spider species were identified in the area. Four of them — *Cyclosa oculata*, *Micrargus laudatus*, *Walckenaeria* (= *Cornicularia*) *kochi* and *Walckenaeria* (= *Cornicularia*) *unicornis* — are new to the Hungarian fauna, five for the Balaton region and some rare species were also caught. The results are summarized in Table 1.

The highest species diversity was found at Bozsai-bay — it is a large reedbelt — with 120 species, the lowest at Balatonszéplak-felső, a concrete-covered section of the shore with a small reed-spot, with 6 species. The new species to the Hungarian fauna, and the rare species are the following:

### *Haplodrassus signifer* C. L. KOCH

This species lives in sandy areas and prefers habitats with short vegetation. It was found at the willow hedge along the shoreline.

### *Pardosa prativaga* C. L. KOCH

This is a rare, euryhygric species with an irregular distribution. It was collected at Balatonakali, along the shore. It is the first occurrence of this species in the Balaton region.

### *Trochosa spinipalpis* O.P.- CAMBRIDGE

This species is again new for the Balaton region, with an Arboreo-Mediterranean distribution. It is considered to live in wetlands and along shorelines.

Table 1. The spider fauna of the shore of Lake Balaton.

Bke = Balatonkenese, KAö = Káptalanfüred - Alsóörs, Pal = Paloznaki-bay, Bo = Bozsai-bay,  
 Bu = Balatonudvari, Bak = Balatonakali, Bsze = Balatonszepezd, Ábr = Ábrahámhegy, Szig = Szigliget,  
 Bgy = Balatongyörök, Fe = Fenékpusztá, Bb = Balatonberény, Bf = Balatonfenyves,  
 Bszl = Balatonszéplak-felső, Bvi = Balatonvilágos

	Bke	KAö	Pal	Bo	Bu	Bak	Bsze	Ábr	Szn	Bgy	Fe	Bb	Bf	Bszl	Bvi
<b>DICTYNIDAE</b>															
<i>Dictyna annulipes</i> Linné															
<i>Dictyna flavescens</i> Walckenaer															
<i>Dictyna lalana</i> Fabricius															
<i>Dictyna pusilla</i> Thorell															
<i>Dictyna uncinata</i> Thorell															
<i>Dictyna viduata</i> O. Müller															
<i>Higma walckenaeri</i> Roewer															
<i>Argema crassipalpis</i> Duf.															
<b>DYSERIDAE</b>															
<i>Harpadon rubicundus</i> C.L. Koch															
<i>Dysdera nitens</i> Canestrini															
<b>ZODARIIDAE</b>															
<i>Zodarium</i> sp. nov.															
<b>GNAPHOSIDAE</b>															
<i>Gnaphosia pubescens</i> Thorell															
<i>Haplodrastus toggeri</i> C.L. Koch															
<i>Zelotes apicicornis</i> L. Koch															
<i>Zelotes praeficus</i> L. Koch															
<i>Zelotes pedestris</i> C.L. Koch															
<i>Micaria fulgens</i> Walckenaer															
<b>CLUBIONIDAE</b>															
<b>CLUBIONINAE</b>															
<i>Clubiona candelensis</i> L. Koch															
<i>Clubiona cincta</i> C.L. Koch															
<i>Clubiona diversa</i> G.L. Koch															
<i>Clubiona hyalina</i> Simon															
<i>Clubiona maculosa</i> Westring															
<i>Clubiona obscurata</i> C.L. Koch															
<i>Clubiona reissneri</i> Lockyer															
<i>Clubiona stagnalis</i> Kulczynski															
<i>Clubiona subola</i> L. Koch															
<i>Cheracanthum affosum</i> Harman															
<i>Cheracanthum erraticum</i> Walckenaer															
<i>Cheracanthum subrotundum</i> Villers															
<b>LIOCRANINAE</b>															
<i>Aorocina striata</i> Kulczynski															
<i>Aroca brunnea</i> Bischoff															
<i>Aroca pullata</i> Thorell															
<i>Phycolothus festinus</i> C.L. Koch															
<b>ZORIDAE-CTENIDAE</b>															
<i>Zora sphinaria</i> Sundevall															
<b>EUSPARASSIDAE</b>															
<i>Micrommata virgata</i> Clerck															
<b>THOMISIDAE</b>															
<b>MISUMENINAE</b>															
<i>Thomisus anaxinus</i> Walckenaer															
<i>Dasa dorsalis</i> Fabricius															
<i>Hanaua crassipala</i> Böschsch															
<i>Hanaua savignyi</i> Simon															
<i>Maugenia velia</i> Clerck															
<i>Misumenops incisus</i> Fabricius															
<i>Runcina lateralis</i> C.L. Koch															
<i>Xysticus kochi</i> Thorell															
<i>Xysticus ulmi</i> Hahn															
<i>Oxyptila atomaria</i> Panzer															
<i>Oxyptila baschensis</i> Simon															
<i>Oxyptila praticola</i> G.L. Koch															
<i>Oxyptila simplex</i> Cambridge															
<b>PHILODROMIDAE</b>															
<i>Philodromus aureolus</i> Clerck															
<i>Philodromus caespitosus</i> Walckenaer															
<i>Philodromus dispar</i> Walckenaer															
<i>Philodromus felleus</i> Sundevall															
<i>Philodromus nufus</i> Walckenaer															
<i>Thomisus</i> sp. nov.															
<i>Tibellus maritimus</i> Menge															
<i>Tibellus oblongus</i> Walckenaer															
<b>SALTICIDAE</b>															
<i>Salticus scaberrimus</i> Clerck															
<i>Heliophanus senilis</i> Hahn															
<i>Heliophanus auratus</i> C.L. Koch															
<i>Heliophanus caudatus</i> Walckenaer															
<i>Heliophanus flavipes</i> C.L. Koch															
<i>Marpissa cambridgei</i> Can. et Pav.															
<i>Marpissa vivax</i> Lucas															
<i>Marpissa reduta</i> Gribodo															
<i>Bakia depressa</i> Walckenaer															
<i>Eucophrys petrensis</i> C.L. Koch															
<i>Eucophrys portalis</i> Walckenaer															
<i>Saliculus horridus</i> C.L. Koch															
<i>Evarcha arcuata</i> Clerck															
<i>Myrmecoleon formicarius</i> Degeer															
<b>OXYOPIDAE</b>															
<i>Oxyopes heterophthalmus</i> Latreille															
<b>LYCOSIDAE</b>															
<i>Pardosa similata</i> Clerck															
<i>Pardosa hortensis</i> Thorell															
<i>Pardosa lugubris</i> Walckenaer															
<i>Pardosa monticola</i> Clerck															
<i>Pardosa paludicola</i> Clerck															
<i>Pardosa palustris</i> Linné															
<i>Pardosa pratincola</i> C.L. Koch															
<i>Pardosa pullata</i> Clerck															

	Baa	KAD	Pat	Bo	Bu	Brk	Baze	Abr	Sde	Bgv	Fe	Bb	Bf	Bzd	Bw
<i>Alopecosa purpurascens</i> Clerck															
<i>Trochosa robusta</i> Simon															
<i>Trochosa spinulipes</i> Cambridge															
<i>Trochosa lernicola</i> Thorell															
<i>Arctosa maculata</i> Hahn															
<i>Prata hygrophila</i> Thorell															
<i>Prata latitans</i> Blackwall															
<i>Prata piscatorius</i> Clerck															
<i>Prata praticus</i> Clerck															
<i>Prata tapetaria</i> Simon															
PISAURIDAE															
<i>Pisaura mirabilis</i> Clerck															
<i>Odiopoda limbata</i> Clerck															
ARGYRONETIDAE															
<i>Argyroneta aquatica</i> Clerck															
AGELENIDAE															
<i>Agelena gladiata</i> C.L. Koch															
<i>Agelena labyrinthica</i> Clerck															
MAHRIDAE															
<i>Artiola elegans</i> Blackwall															
<i>Hahnia nava</i> Blackwall															
MIMETIDAE															
<i>Ero sphaera</i> Walckenaer															
<i>Ero fusca</i> Vigneri															
THERIDIIDAE															
<i>Acheronina</i> sp.															
<i>Theridion bimaculatum</i> Linnaeus															
<i>Theridion palare</i> Blackwall															
<i>Theridion pictum</i> Walckenaer															
<i>Theridion pinastri</i> L. Koch															
<i>Theridion assyriacum</i> Clerck															
<i>Theridion varians</i> Hahn															
<i>Enoplognathus ovatus</i> Clerck															
<i>Enoplognathus schaufusii</i> L. Koch															
<i>Enoplognathus thoracicus</i> Hahn															
<i>Robertus eruditi</i> Cambridge															
<i>Epirinus inaequalis</i> Latreille															
TETRAGNATHIDAE															
<i>Tetragnatha extensa</i> Linnaeus															
<i>Tetragnatha dactylota</i> Thorell															
<i>Tetragnatha nigra</i> Linnaeus															
<i>Tetragnatha pinicola</i> L. Koch															
<i>Pachygnatha clerici</i> Sundevall															
<i>Pachygnatha degeeri</i> Sundevall															
<i>Pachygnatha islan</i> Sundevall															
<i>Mela mengeli</i> Blackwall															
<i>Mela segmentata</i> Clerck															
ARANEIDAE															
<i>Gibbaranea bluberculata</i> Walckenaer															
<i>Agelenes redi</i> Scopoli															
<i>Araneus bluberculus</i> Walckenaer															
<i>Araneus didematus</i> Clerck															
<i>Araneus marmoreus</i> Clerck															
<i>Araneus quadratus</i> Clerck															
<i>Larinioides conicus</i> Clerck															
<i>Larinioides fukum</i> Schrank															
<i>Larinioides patagialis</i>															
<i>Larinioides scelopari</i> Clerck															
<i>Mangora scabripes</i> Walckenaer															
<i>Aranya curvipes</i> Clerck															
<i>Hypomysus hani</i> Hahn															
<i>Singa hamata</i> Oliver															
<i>Singa kurti</i> Savigny et Audouin															
<i>Singa nigula</i> C.L. Koch															
<i>Cyclosa alata</i> C.L. Koch															
<i>Cyclosa diplo</i> Walckenaer															
<i>Cyclosa ovata</i> Walckenaer															
<i>Aranea bryonensis</i> Scopoli															
LINYPHIDAE															
<i>Meroplus vana</i> Blackwall															
<i>Masonella pyralis</i> C.L. Koch															
<i>Stenomphantes brevis</i> Menge															
<i>Bathypantes pulatus</i> Cambridge															
<i>Bathypantes nigrus</i> Westring															
<i>Delostylus sinclairi</i> Vigneri															
<i>Lophophanes latus</i> Blackwall															
<i>Phoroma conicum</i> Westring															
<i>Merina clathrata</i> Sundevall															
<i>Linypha hortensis</i> Sundevall															
<i>Linypha pulchra</i> Sundevall															
<i>Linypha maritima</i> Clerck															
<i>Centromerus sapientis</i> Cambridge															
<i>Dactyloscopus sordidus</i> Thorell															
ERIGONIDAE															
<i>Gonygaster muricatus</i> Simon															
<i>Ceratinella brevis</i> Vigneri															
<i>Ophiopeltus pictus</i> Blackwall															
<i>Tarsonycha insula</i> L. Koch															
<i>Nematogmus sanguinolentus</i> Walck.															
<i>Trichorhynchus dentatus</i> Vigneri															
<i>Gonatus conicus</i> Cambridge															
<i>Oedothorax epistylus</i> Blackwall															
<i>Oedothorax abbas</i> Blackwall															
<i>Micrarus herbivorus</i> Blackwall															
<i>Micrarus laetulus</i> Cambridge															
<i>Two vagans</i> Blackwall															
<i>Walckenaeria antica</i> Vigneri															
<i>Walckenaeria kochi</i> Cambridge															
<i>Walckenaeria vigax</i> Blackwall															
<i>Walckenaeria unicomis</i> Cambridge															
<i>Erigne dentipalpis</i> Vigneri															
<i>Erigne alba</i> Blackwall															

*Pirata tenuitarsis* SIMON

This species is present throughout the Paleo- and Neoarctic regions except for Africa. As it is hygrophilic and avoids shadow, this species prefers marshy habitats. Its occurrence in Balatonakali is also a new record for the Balaton region.

*Cyclosa oculata* WALCKENAER

This species is distributed throughout the temperate regions of Europe and Asia. In Hungary, however, this is the first record; it was found in the reed vegetation of the Bozsai-bay.

*Kaestneria pullata* (= *Batyphantes pullatus*) O.P.-CAMBRIDGE

A rare species in Hungary with an European distribution. It always occurs near the water in wetlands and in reedy areas among the vegetation with helio- and hygrophil features. It was found in reed vegetation very near to the water in the Bozsai-bay.

*Micrargus laudatus* O.P.-CAMBRIDGE

A rare species with an unknown habitat preference. It was found in a temporarily water covered site near the Bozsai-bay. This is its first record for the Hungarian fauna.

*Walckenaeria* (= *Cornicularia*) *kochi* O.P.-CAMBRIDGE

A new species for Hungary. It has got a mainly Western European distribution and considered to be a hygrophilic species. It was collected from temporarily water covered sedge and reed vegetation near the Bozsai-bay.

*Walckenaeria* (= *Cornicularia*) *unicornis* O.P.-CAMBRIDGE

A new species in the Hungarian fauna, with an European distribution excluding Southern Europe. It was collected from reeds in the Bozsai-bay.

*Diplostyla concolor* WIDER

This species is new for the Balaton region, with a Central-European distribution, occurring in wet, shady habitats. It was found on reed fragments.

## *Donacochara speciosa* THORELL

This species is strictly bound to reedy habitats and wetlands. Its distribution area contains Central-Europe. In Hungary it had been recorded at some other sites before, but not in the Balaton region.

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